



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/927,474	08/13/2001	Philip Cunetto	P19740.P05	6140
7055	7590	10/18/2005	EXAMINER	
GREENBLUM & BERNSTEIN, P.L.C.			MERED, HABTE	
1950 ROLAND CLARKE PLACE			ART UNIT	
RESTON, VA 20191			PAPER NUMBER	
			2662	
DATE MAILED: 10/18/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/927,474

Applicant(s)

CUNETTO ET AL.

Examiner

Habte Mered

Art Unit

2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-14,16-26 and 28-33 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-14,16-26 and 28-33 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>07-22-2005</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

1. The amendment filed on 22 July 2005 has been entered and fully considered.
2. The Applicant has canceled claims 3, 15, and 27 as indicated in the amendment filed on 22 July 2005.
3. Claims 1, 2, 4-14, 16-26, 28-33 are pending.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1-33** rejected under 35 U.S.C. 103(a) as being unpatentable over Gallant et al (US Pub. No. 2001/0026553), hereinafter referred to as Gallant, in view of Zhou et al (Sihui Zhou et al, "Efficient Location Management for Hybrid Wireless ATM Networks: Architecture and Performance Analysis", 1999, IEEE, pages 378-381), hereinafter referred to as Zhou.

Gallant discloses a method used for bandwidth control in ATM network whereby a Switched Virtual Circuit (SVC) call request is initially authenticated by checking if the call originator is associated to the access port where the call originated from and if so the network will apply the originator's individual service policies. Gallant discloses to implement a bandwidth control system, similar to that of the applicant, a system that contains an ATM end or edge switch, a Service Control Point (SCP) with an intelligent

policy server system, and an ATM Signaling Intercept Processor (ASIP). For all practical purposes, Gallant discloses that the SCP and ASIP can be considered as part of the ATM edge switch. (See also Paragraph 44) The ASIP is responsible for the communication between the ATM edge switch and the SCP/Policy Server. The ASIP will intercept signaling messages generated at the edge switch prior to establishing an end-to-end switched virtual circuit and forward it the SCP/Policy Server. The return message from the policy server will determine whether a SVC call connection can be made. The policy server serves as the subscriber profile database as well as the registration server. (See Figure 1 and Paragraphs 8, 36, 42, and 43)

6. Regarding **claims 1 and 25**, Gallant discloses a method for associating a connection request in a high speed data network with a network subscriber, the method comprising: receiving a signaling protocol message requesting the connection from the subscriber at an access port (**See Paragraph 15; Figure 4A steps 402 and 404 and Paragraphs 59 and 60**); determining whether the signaling protocol message contains authentication data to authenticate the subscriber (**See Paragraph 16. Gallant discloses that the SCP/policy server shall make a determination based at least in part on the signaling message, policy profile authorized for a port, et cetera, if a particular policy feature is to be invoked. See step 408 in Figure 4A and Paragraph 59; See also step 810 in Figure 8 and Paragraph 77**); and when the subscriber is authenticated, associating the connection request with data from an account corresponding to the subscriber. (**See Paragraph 19. Since Gallant's policy server houses the subscriber account, which shows what features are associated**

Art Unit: 2662

with the subscriber, along with the information to verify the subscriber, authentication and associating request with user account may appear as a one step process. However, at the policy server a simple check like verifying if the customer is authorized to use the access port constitutes the authentication process while associating the special call features from the caller's account with the call before setting up the SVC call is a second step. See also step 410 in Figure 4A and Paragraph 60; See also step 812 in Figure 8 and Paragraph 77)

Gallant, however, fails to teach the subscriber accessing the high speed data network from a remote access port, which is different from a permanent access port of the subscriber and registering an address of the remote access port in the network.

Zhou discloses location and terminal management in an ATM wireless network.

Zhou discloses a subscriber accessing the high speed data network from a remote access port, which is different from a permanent access port of the subscriber and registering an address of the remote access port in the network. **(Zhou teaches how a mobile subscriber can access a high speed data network in the form ATM wireless network that is formed by special ATM switches. Further Zhou shows that the mobile terminal can request access from a remote access port in a network by using the mechanism of VLR (Visitor Location Register). See Page 380, Section IV and Figure 2. Zhou shows that the address of the remote access port in the foreign cell is registered in the VLR and HLR of the base stations and in switches that have location management feature and are known as End User**

Mobile ATM Switches (EMAS) in the network. See Page 378, Column 1, Lines 1-20; Page 379, second column, Section A, Bullet Item 2)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Gallant's system to incorporate a means of accessing the network using a new access port different from the pre-assigned permanent one and registering the transaction, the motivation being to create a viable inter-working between wireless systems and the growing ATM core network. Gallant further describes in Paragraph 39 how any entity that is operable to access an ATM core network can establish an end-to-end call and Zhou discloses on Page 378, Column 1, Lines 1-20 such an entity can be an ATM wireless network using a core ATM network.

7. Regarding **claims 2 and 26**, Gallant discloses a method, further comprising: retrieving service policies from the subscriber account; **(Gallant discloses that the policy server has access to a profile array database containing service profiles of each subscriber as shown in Figure 3. The SCP/policy server effectuates these policy features from the subscriber account found in Figure 3. See also steps 410 in Figure 4A and Paragraphs 17, 59, and 60)**

determining from the service policies whether the subscriber is entitled to access the network from the access port, as requested; **(See step 414 in Figure 4B and Paragraph 60)** and

enabling access to the high speed network when the service policies entitle the subscriber to make the requested access. **(See step 416 in Figure 4B and Paragraph 60)**

8. Regarding **claims 4 and 28**, Gallant teaches all aspects of the claimed invention as set forth in the rejection of claims 1 and 25 respectively but fails to disclose a method in which registering an address of the remote access port in the network comprising substituting the address of the remote access port for an existing subscriber address corresponding to the permanent access port.

Zhou discloses a method in which registering an address of the remote access port in the network comprising substituting the address of the remote access port for an existing subscriber address corresponding to the permanent access port. **(Page 379, 2nd Column, Section on “Mobile IP Scheme” and Page 380, Section IV. Zhou teaches that the device accessing the network from a remote port (i.e. in a foreign cell) gets a care-of-address and is associated with the permanent address. It is obvious to one ordinarily skilled in the art that the care-of-address does not replace the permanent address to accommodate the future motion of the device to its permanent location or port and can easily replace the permanent address if the device is not mobile.)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Gallant's system to incorporate a means of accessing the network using a new access port different from the pre-assigned permanent one and registering the transaction, the motivation being to create a viable inter-working between wireless systems and the growing ATM core network. Gallant further describes in Paragraph 39 how any entity that is operable to access an ATM core network can

establish an end-to-end call and Zhou discloses on Page 378, Column 1, Lines 1-20 such an entity can be an ATM wireless network using a core ATM network.

9. Regarding **claim 5**, Gallant discloses a method for associating a connection request from one of a plurality of subscribers at a single access port in a high speed data network, **(See Paragraph 73)** the method comprising:

receiving a signaling protocol message from one of the plurality of subscribers requesting the connection from the access port, the signaling protocol message comprising a plurality of data fields**(See Paragraph 39; The signaling protocol message is a Q.2931 setup message and has several data fields; See also Paragraph 15; Figure 4A steps 402 and 404 and Paragraphs 59 and 60)** retrieving authentication data from at least one of the plurality of data fields; **(See Paragraph 16. Gallant discloses that the SCP/policy server shall make a determination based at least in part on the signaling message, policy profile authorized for a port, et cetera, if a particular policy feature is to be invoked. See step 408 in Figure 4A and Paragraph 59; See also step 810 in Figure 8 and Paragraph 77)**

comparing the retrieved authentication data with a plurality of network subscriber accounts including an account of the requesting subscriber; **(See also step 410 in Figure 4A and Paragraph 60; See also step 812 in Figure 8 and Paragraph 77)** and associating the connection request with the requesting subscriber account corresponding to the authentication data; **(See also step 410 in Figure 4A and Paragraph 60; See also step 812 in Figure 8 and Paragraph 77)**

Art Unit: 2662

wherein at least one other subscriber of the plurality of subscribers can request simultaneously a connection from the same access port. **(See Paragraphs 73, 78, and 143)**

Gallant, however, fails to teach the subscriber accessing the high speed data network from a remote access port, which is different from a permanent access port of the subscriber and registering an address of the remote access port in the network.

Zhou discloses a subscriber accessing the high speed data network from a remote access port, which is different from a permanent access port of the subscriber and registering an address of the remote access port in the network. **(Zhou teaches how a mobile subscriber can access a high speed data network in the form ATM wireless network that is formed by special ATM switches. Further Zhou shows that the mobile terminal can request access from a remote access port in a network by using the mechanism of VLR (Visitor Location Register). See Page 380, Section IV and Figure 2. Zhou shows that the address of the remote access port in the foreign cell is registered in the VLR and HLR of the base stations and in switches that have location management feature and are known as End User Mobile ATM Switches (EMAS) in the network. See Page 378, Column 1, Lines 1-20; Page 379, second column, Section A, Bullet Item 2)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Gallant's system to incorporate a means of accessing the network using a new access port different from the pre-assigned permanent one and registering the transaction, the motivation being to create a viable inter-working

between wireless systems and the growing ATM core network. Gallant further describes in Paragraph 39 how any entity that is operable to access an ATM core network can establish an end-to-end call and Zhou discloses on Page 378, Column 1, Lines 1-20 such an entity can be an ATM wireless network using a core ATM network.

10. Regarding **claim 6**, Gallant teaches all aspects of the claimed invention as set forth in the rejection of claim 5 respectively but fails to disclose a method, in which the registering comprises: retrieving from a second one of the plurality of data fields a network access port address corresponding to the access port; and changing a registration address associated with the requesting subscriber account from an original access port address to the network access port address.

Zhou discloses a method, in which the registering comprises: retrieving from a second one of the plurality of data fields a network access port address corresponding to the access port; and changing a registration address associated with the requesting subscriber account from an original access port address to the network access port address. **(Zhou teaches how a mobile subscriber can access a high speed data network in the form ATM wireless network that is formed by special ATM switches. Further Zhou shows that the mobile terminal can request access from a remote access port in a network by using the mechanism of VLR (Visitor Location Register). See Page 380, Section IV and Figure 2. Zhou shows that the address of the remote access port in the foreign cell is registered in the VLR and HLR of the base stations and in switches that have location management feature and are known as End User Mobile ATM Switches (EMAS) in the network. See**

Page 378, Column 1, Lines 1-20;Page 379, second column, Section A, Bullet Item 2)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Gallant's system to incorporate a means of accessing the network using a new access port different from the pre-assigned permanent one and registering the transaction, the motivation being to create a viable inter-working between wireless systems and the growing ATM core network. Gallant further describes in Paragraph 39 how any entity that is operable to access an ATM core network can establish an end-to-end call and Zhou discloses on Page 378, Column 1, Lines 1-20 such an entity can be an ATM wireless network using a core ATM network.

11. Regarding **claim 7**, Gallant discloses a method further comprising: receiving at least one connection request from another user of the high speed network, the request directed to the requesting subscriber **(See Figures 2A, 2B, 4A and 4B)**.

Gallant fails to disclose at least one connection request to the changed address.

Zhou discloses at least one connection request to a changed address. **(Figure 3 and Page 380, Column 2, Section on Call Delivery. The changed address is effectively the care-of-address)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Gallant's system to incorporate a means of accessing the network using a new access port different from the pre-assigned permanent one and registering the transaction, the motivation being to create a viable inter-working between wireless systems and the growing ATM core network. Gallant further describes in

Art Unit: 2662

Paragraph 39 how any entity that is operable to access an ATM core network can establish an end-to-end call and Zhou discloses on Page 378, Column 1, Lines 1-20 such an entity can be an ATM wireless network using a core ATM network.

12. Regarding **claim 8**, Gallant discloses a method for associating a network policy with a subscriber in an asynchronous transfer mode (ATM) network, the network policy including rights for establishing a switched virtual circuit (SVC) connection, the method comprising: **(See Paragraphs 10, 11, 12, 15-19)**

interfacing between the ATM network and the subscriber through an ATM compatible access port; **(See Paragraphs 38 and 39 and step 802 in Figure 8)**

receiving at the ATM network a conventional signaling protocol message requesting the SVC connection; **(See step 402 in Figure 4A; step 808 in Figure 8)**

determining whether the signaling protocol message contains a first identification number associated with the subscriber; **(See step 810 in Figure 8; Subscriber or CPE address is the first identification number to be determined)**

when the signaling protocol message contains the first identifier, determining whether the signaling protocol message contains a second identifier that correctly corresponds to the first identifier; **(See step 810 in Figure 8; Customer Logical Port (CLP) is the 2nd identification number to be determined)**

when the signaling protocol message contains the correctly corresponding second identifier, retrieving the service policy from an account associated with the first identifier and the second identifier; **(See step 812 in Figure 8; Step 408 in Figure 4A)**

Art Unit: 2662

determining whether the retrieved service policy permits the subscriber to establish an SVC connection; **(See step 414 in Figure 4B)** and when the retrieved service policy permits the subscriber to establish an SVC connection, establishing the SVC connection. **(See step 812 in Figure 8 and Step 416 in Figure 4B)**

Gallant fails to disclose that the ATM compatible access port can be remote from a first access port previously associated with the subscriber and the address of the ATM compatible access port is registered.

Zhou teaches that the ATM compatible access port can be remote from a first access port previously associated with the subscriber and the address of the ATM compatible access port is registered. **(Zhou's system is an ATM wireless network with an ATM backbone and with an ATM compatible Mobile Switching Center which he refers as EMAS and controls the base stations and for one ordinarily skilled in the art in such a system every port has to be compatible with ATM. See Page 378, Column 1, Lines 1-20. Further Zhou shows that the mobile terminal can request access from a remote access port in a network by using the mechanism of VLR (Visitor Location Register). See Page 380, Section IV and Figure 2. Zhou shows that the address of the remote access port in the foreign cell is registered in the VLR and HLR of the base stations and EMAS in the network. See Page 378, Column 1, Lines 1-20; Page 379, second column, Section A, Bullet Item 2)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Gallant's system to incorporate a means of accessing

the network using a new access port different from the pre-assigned permanent one and registering the transaction, the motivation being to create a viable inter-working between wireless systems and the growing ATM core network. Gallant further describes in Paragraph 39 how any entity that is operable to access an ATM core network can establish an end-to-end call and Zhou discloses on Page 378, Column 1, Lines 1-20 such an entity can be an ATM wireless network using a core ATM network.

13. Regarding **claim 9**, Gallant discloses the method for associating a network policy with a subscriber in an ATM network, wherein the first identifier comprises a publicly known identifier associated with the subscriber and the second identifier comprises an encrypted private password associated with the first identification number. **(Gallant discloses the authentication can be done at different levels so long as the information that needs to be verified can be carried in the initial setup message and does not exclude encrypted private password. See Paragraph 16 To one skilled in the art, verification using username and password and encrypting the password is very well known. Further in the case of accessing the remote access port the section 5 of RFC 2002 which is a publicly available document on IP mobility)**

14. Regarding **claims 10 and 21**, Gallant discloses the method for associating a network policy with a subscriber in an ATM network, the signaling protocol message comprising a SETUP message, the first identifier being contained in a first predetermined field of the SETUP message and the second identifier being contained in a second predetermined field of the SETUP message. **(See Paragraphs 39 and 59.**

Standard SETUP message is used by Gallant and any of the optional information elements can be used to transport the first and second identifiers.)

15. Regarding **claim 11**, Gallant teaches all aspects of the claimed invention as set forth in the rejection of claim 8 respectively but fails to disclose a method, the registering comprising:

retrieving the ATM compatible access port address from a signaling protocol message; retrieving from a registration database registration data associated with the subscriber, the registration data comprising a first ATM address; and replacing the first ATM address with the ATM compatible access port address retrieved from the signaling protocol message.

Zhou teaches a method, the registering comprising: retrieving the ATM compatible access port address from a signaling protocol message; retrieving from a registration database registration data associated with the subscriber, the registration data comprising a first ATM address; and replacing the first ATM address with the ATM compatible access port address retrieved from the signaling protocol message.

(Zhou's system is an ATM wireless network with an ATM backbone and with an ATM compatible Mobile Switching Center which he refers as EMAS and controls the base stations and for one ordinarily skilled in the art in such a system every port has to be compatible with ATM. See Page 378, Column 1, Lines 1-20. Further Zhou shows that the mobile terminal can request access from a remote access port in a network by using the mechanism of VLR (Visitor Location Register). See Page 380, Section IV and Figure 2. Zhou shows that the address of the

remote access port in the foreign cell is registered in the VLR and HLR of the base stations and EMAS in the network. See Page 378, Column 1, Lines 1-20; Page 379, second column, Section A, Bullet Item 2)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Gallant's system to incorporate a means of accessing the network using a new access port different from the pre-assigned permanent one and registering the transaction, the motivation being to create a viable inter-working between wireless systems and the growing ATM core network. Gallant further describes in Paragraph 39 how any entity that is operable to access an ATM core network can establish an end-to-end call and Zhou discloses on Page 378, Column 1, Lines 1-20 such an entity can be an ATM wireless network using a core ATM network.

16. Regarding **claims 12 and 29**, Gallant discloses a method for registering an access port of a subscriber in a high speed data network, the method comprising: establishing a connection between a subscriber terminal and a network registration database in the high speed network, the subscriber terminal accessing the high speed data network via the access port; **(Gallant discloses that the SCP/policy server is the network registration database and contains policy features allowed for the subscriber account. The subscriber terminal is in effect has a connection to the policy server through the ATM access port via the ASIP. See Figure 1 and Paragraph 40)**

retrieving from the registration database a preexisting registration address associated with the subscriber; **(See Figure 3 and Paragraph 49 and 58; Gallant's policy server also acts as the address registration database).**

Zhou discloses a subscriber accessing the high speed data network from a remote access port, which is different from a permanent access port of the subscriber and registering an address of the remote access port in the network by replacing the preexisting registration address with an address of the remote access port. **(Further Zhou shows that the mobile terminal can request access from a remote access port in a network by using the mechanism of VLR (Visitor Location Register). See Page 380, Section IV and Figure 2. Zhou shows that the address of the remote access port in the foreign cell is registered in the VLR and HLR of the base stations and EMAS in the network. The address of the remote is a care-of-address linked to the permanent port address registered in the HLR. The care-of-address is registered in the VLR with a pointer to the permanent port address. There is no need to delete the permanent port address as the device may use it when it returns to its home location. Zhou points out that these registrations are adequately defined by IETF and RFC2002 Section 2 describes it well. See Zhou Page 379, Column 2, Section on "The Mobile IP Scheme")**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Gallant's system to incorporate a means of accessing the network using a new access port different from the pre-assigned permanent one and registering the transaction, the motivation being to create a viable inter-working between

wireless systems and the growing ATM core network. Gallant further describes in Paragraph 39 how any entity that is operable to access an ATM core network can establish an end-to-end call and Zhou discloses on Page 378, Column 1, Lines 1-20 such an entity can be an ATM wireless network using a core ATM network.

17. Regarding **claims 13 and 30**, Gallant teaches all aspects of the claimed invention as set forth in the rejection of claims 12 and 29 respectively but fails to disclose a method, further comprising: terminating connection requests directed to the subscriber at the preexisting registration address to the address of the remote access port, indicated as the registration address associated with the subscriber.

Zhou discloses a method, further comprising: terminating connection requests directed to the subscriber at the preexisting registration address to the address of the remote access port, indicated as the registration address associated with the subscriber. . **(Figure 3 and Page 380, Column 2, Section on Call Delivery. All calls directed for calls intended for recipients in the Home Location but are in a Visiting or Foreign Location are redirected to the care-of-address of the remote access port.)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Gallant's system to incorporate a means of accessing the network using a new access port different from the pre-assigned permanent one and registering the transaction, the motivation being to create a viable inter-working between wireless systems and the growing ATM core network. Gallant further describes in Paragraph 39 how any entity that is operable to access an ATM core network can

establish an end-to-end call and Zhou discloses on Page 378, Column 1, Lines 1-20 such an entity can be an ATM wireless network using a core ATM network.

18. Regarding **claims 14 and 31**, Gallant discloses the method, further comprising: prior to retrieving the preexisting registration address, authenticating the subscriber; (**See Figure 3 and Paragraphs 16, 49, and 58; In Gallant's system the customer's address initially registered can be retrieved as part of the authentication or after authentication as it is readily available as indicated in Figure 3 with elements 302, 304, and 306**) and when the subscriber is successfully authenticated, retrieving service policies corresponding to the subscriber. (**See step 812 in Figure 8; Step 408 in Figure 4A**)

19. Regarding **claims 17 and 23**, Gallant discloses a system for processing a switched virtual circuit (SVC) connection request in a high speed data network (**See Paragraphs 12 and 17**), the system (**See Figure 1**) comprising: a registration server of the high speed network that stores at least one identification number associated with a network subscriber; (**Element 114B in Figure 1; Policy Server contains at least one identification number associated with a customer as shown in Figure 3**) a database of the high speed network that stores at least one policy defining permission to establish SVC connections; (**Element 114B in Figure 1; Policy Server contains at least one policy defining permission to establish SVC call as shown in Figure 3**) and at least one switch in the high speed data network that accesses the registration server and the database; (**See element 104B in Figure 1**)

wherein the switch is accessible by at least one access port, connectable to the switch, which enables the network subscriber to interface with the high speed data network from a subscriber terminal; **(See Paragraphs 38)** and

wherein the switch receives a protocol message from the subscriber terminal requesting the SVC connection via the access port, accesses the registration server to determine whether the protocol message contains valid authentication data, retrieves the at least one policy associated with the network subscriber from the registration database when the protocol message contains valid authentication data, and establishes the SVC connection according to the at least one policy. **(See Paragraphs 45-47)**

Gallant fails to disclose the subscriber terminal requesting a connection via a remote access port.

Zhou discloses the subscriber terminal requesting a connection via a remote access port. **(Figure 3 and Page 380, Column 2, Section on Call Delivery. In Zhou's architecture a mobile terminal traveling away from its home location can use a remote access port at a base station in a foreign cell which is the basics of mobile IP scheme. The connection request can be SVC or PVC based on pre-provisioned entities as the call is going through an ATM wireless network and an ATM core.)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Gallant's system to incorporate a means of accessing the network using a new access port different from the pre-assigned permanent one and registering the transaction, the motivation being to create a viable inter-working between

wireless systems and the growing ATM core network. Gallant further describes in Paragraph 39 how any entity that is operable to access an ATM core network can establish an end-to-end call and Zhou discloses on Page 378, Column 1, Lines 1-20 such an entity can be an ATM wireless network using a core ATM network.

16. Regarding **claim 20**, Gallant discloses a system for processing services of a subscriber in an asynchronous transfer mode (ATM) network, including establishing a switched virtual circuit (SVC) connection, the system comprising:
an ATM network registration server that stores authentication data associated with the subscriber, the authentication data comprising an identification number and a password; **(Element 114B in Figure 1; Policy Server contains at least one identification number associated with a customer as shown in Figure 3; Gallant discloses the authentication can be done at different levels so long as the information that needs to be verified can be carried in the initial setup message and does not exclude encrypted private password. See Paragraph 16)**
an ATM network service database that stores at least one ATM policy comprising establishing the SVC connection; **(Element 114B in Figure 1; Policy Server contains at least one policy defining permission to establish SVC call as shown in Figure 3)** and
at least one ATM network switch that accesses the registration server and the service database, the ATM switch being connectable to an access port that enables the subscriber to interface with the ATM network from a subscriber terminal**(See element 104B in Figure 1);**

Art Unit: 2662

wherein the registration server determines whether a signaling protocol message requesting the SVC connection, received via the access port, includes the identification data and the password associated with the subscriber; and

wherein, when the protocol message includes the identification data and the password, the at least one switch accesses the service database to determine the ATM service policies associated with the subscriber and processes the SVC connection request according to the ATM service policies. **(Gallant discloses the authentication can be done at different levels so long as the information that needs to be verified can be carried in the initial setup message and does not exclude encrypted private password. See Paragraph 16)**

Gallant fails to discloses at least one ATM network switch that accesses the registration server and the service database, the switch being connectable to a remote access port that enables the subscriber to interface with the ATM network from a subscriber terminal.

Zhou discloses at least one ATM network switch that accesses the registration server and the service database, the switch being connectable to a remote access port that enables the subscriber to interface with the ATM network from a subscriber terminal. **(Zhou shows devices to connect to a remote access port, which is in a foreign cell using the VLR and HLR. Certainly the core ATM network as taught by Gallant can access its own registration server and service database. There is no need for the core ATM network to access the VLR/HLR as the base stations act as gateways and do mapping. See Figure 1 and Page 380 Section III.)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Gallant's system to incorporate a means of accessing the network using a new access port different from the pre-assigned permanent one and registering the transaction, the motivation being to create a viable inter-working between wireless systems and the growing ATM core network. Gallant further describes in Paragraph 39 how any entity that is operable to access an ATM core network can establish an end-to-end call and Zhou discloses on Page 378, Column 1, Lines 1-20 such an entity can be an ATM wireless network using a core ATM network.

20. Regarding **claims 18 and 32**, Gallant disclosed all aspects of the claimed invention as set forth in the rejection of claims 17 and 32 respectively but failed to disclose the system wherein the remote access port is different from a previously established access port of the network subscriber.

Zhou discloses an efficient location management system for a hybrid wireless ATM network (See Figure 1). The network uses two types of database a Home Location Register (HLR) and Visitor Location Register. The HLR stores the pre-assigned permanent address of the subscriber. When the subscriber uses a different access port in a different cell then it registers with the VLR to get a temporary address reflecting the new access port different from the permanent one. Zhou further indicates that the mobile subscriber has to register its temporary and permanent address with the VLR. The VLR updates the HLR. **(See Page 380 Sections III and IV; Zhou discloses how a subscriber can use an access port different from the pre-assigned**

permanent one and yet be able to receive calls because the HLR is current with its current address.)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Gallant's system to incorporate a means of accessing the network using a new access port different from the pre-assigned permanent one, the motivation being to create a viable inter-working between wireless systems and the growing ATM core network. Gallant further describes in Paragraph 39 how any entity that is operable to access an ATM core network can establish an end-to-end call and Zhou discloses on Page 378, Column 1, Lines 1-20 such an entity can be an ATM wireless network using a core ATM network.

21. Regarding **claims 16 and 33**, Gallant discloses all aspects of the claimed invention as set forth in the rejection of claims 13 and 29 respectively but failed to disclose a method further comprising: replacing the registration address with the preexisting registration address prior to the subscriber disconnecting from the high speed network at the remote access port; and subsequently terminating connection requests directed to the subscriber to the preexisting registration address associated with the subscriber.

Zhou discloses a method further comprising: replacing the registration address with the preexisting registration address prior to the subscriber disconnecting from the high speed network at the remote access port; and subsequently terminating connection requests directed to the subscriber to the preexisting registration address associated with the subscriber. **(Zhou shows that once the device moves out of the**

foreign cell the association between the care-of-address and the permanent address is dropped. See Page 380 Sections III and IV)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Gallant's system to incorporate a means of accessing the network using a new access port different from the pre-assigned permanent one and registering/deregistering the transaction, the motivation being to create a viable inter-working between wireless systems and the growing ATM core network. Gallant further describes in Paragraph 39 how any entity that is operable to access an ATM core network can establish an end-to-end call and Zhou discloses on Page 378, Column 1, Lines 1-20 such an entity can be an ATM wireless network using a core ATM network.

22. Regarding **claims 19, 22, and 24** Gallant discloses all aspects of the claimed invention as set forth in the rejection of claims 17, 20, and 23 respectively but fails to disclose the method wherein the high-speed subscriber can request an SVC call from an access port that is different from a permanent access port of the subscriber. Gallant further fails to disclose that the ATM subscriber has the ability at will to replace the existing registered access port with a different access port.

Zhou discloses an efficient location management system for a hybrid wireless ATM network (See Figure 1). The network uses two types of database a Home Location Register (HLR) and Visitor Location Register. The HLR stores the pre-assigned permanent address of the subscriber. When the subscriber uses a different access port in a different cell then it registers with the VLR to get a temporary address reflecting the new access port different from the permanent one. Zhou further indicates

Art Unit: 2662

that the mobile subscriber has to register its temporary and permanent address with the VLR. The VLR updates the HLR. Each time the wireless ATM subscriber moves from one cell to another it goes through the registration process. Consequently, the temporary address reflecting the new port address gets re-written in the HLR. Therefore, Zhou gives the wireless ATM subscriber limited option to replace an existing address of an access port with another one as long as it is temporary address. . **(See Page 380 Sections III and IV; Zhou has disclosed a method where by an ATM wireless subscriber can readily replace the existing address of a port as long as it is temporary and different from the permanent one in the HLR. Thus from a technical perspective the know how to allow the end user to replace the permanent address exists as established by Zhou. However, from an operation perspective it makes a lot more sense to only allow the service provider to change the permanent address from a tracking perspective.)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Gallant's system to incorporate a means of accessing the network using a new access port different from the pre-assigned permanent one, the motivation being to create a viable inter-working between wireless systems and the growing ATM core network. Gallant further describes in Paragraph 39 how any entity that is operable to access an ATM core network can establish an end-to-end call and Zhou discloses on Page 378, Column 1, Lines 1-20 such an entity can be an ATM wireless network using a core ATM network.

Response to Arguments

23. Applicant's arguments filed 22 July 2005 have been fully considered but they are not persuasive.

24. Applicant, in the Remarks on Page 16, in Lines 7-9, argues that Zhou does not teach registering network access port information in association with the network subscriber. Examiner respectfully disagrees with the Applicant's conclusion. First the Examiner would like to point that even in the amended claims, for instance claim 1, the word "network" is used with no qualification what so ever and it is clear to one skilled in the art that a network can be a pure IP network or a pure wireless network.

Nevertheless, even if such clarity is provided, as the Applicant has readily admitted in Page 16, Lines 10-13, Zhou teaches location management in a wireless network.

However Zhou clearly points out in Page 379, Column 1 it is an ATM wireless network where the core network is an ATM network. Extending Zhou's location management teaching to the core ATM network should be obvious to one ordinarily skilled in the art and less complicated as the "mobility" issue is removed.

25. Applicant, in the Remarks on Page 16 in the last sentence, argues that the ATM network is transparent to the fact that the mobile terminal has a new care-of-address. The Examiner response to this issue is that this is a consequence of the architecture and not an indication that Zhou's location management teachings cannot be extended to the ATM core network. Further clearly Zhou shows on Page 378, Column 1, in Lines 10-15 the existence of ATM switches with location management referred to as "End-User Mobile ATM switches (EMAS)". It is only when the wireless ATM network is built

Art Unit: 2662

with standard (non-mobility enabled) ATM switches that the VLR and HLR will have to be located in the base stations.

26. Applicant, in the Remarks on Page 17, in Lines 3-6, argues that there is no registration of remote ports and the permanent address and care-of addresses belong to the same ATM network access port. Examiner respectfully disagrees with Applicant's conclusions. Clearly Zhou teaches the registration of the new remote access port located in a foreign cell different from the home cell in the VLR and HLR and Zhou's teachings has been adequately cited in all the rejections in support of this view. Further to one ordinarily skilled in the art of switching technology both the remote and permanent addresses can be associated with different ATM network access ports.

27. Applicant, in the Remarks on Page 17, in Lines 11-15, argues that there is no motivation to combine Gallant et al. and Zhou et al. references. Examiner respectfully disagrees with the Applicant's conclusion. Gallant describes in Paragraph 39 how any entity that is operable to access an ATM core network can establish an end-to-end call and Zhou discloses on Page 378, Column 1, Lines 1-20 such an entity can be an ATM wireless network using a core ATM network. Zhou clearly shows how an ATM wireless network functions with the support of an ATM core network and Gallant describes the working of the core ATM network. The fact that there is an IP network attached to Zhou's system further shows the inter-working of a complete system between the ATM wireless network and the core ATM network and the IP network. Zhou's location management teaching is not unique to a wireless IP network as the Applicant suggests

but shows the wide applicability of Zhou's teachings to wide variety of networks including IP and ATM wireless networks.

28. Examiner, would like to point out for the record, amended claim 16, which is dependent on independent claim 12, is in fact a mirror image of Zhou's location management teachings. In the independent claim 12 the Applicant indicates "replacing the preexisting registration address with an address of the remote access port" and in dependent claim 16 the Applicant further indicates "replacing the registration address with the preexisting registration address prior to the subscriber disconnecting from the high speed network at the remote access port and subsequently terminating connection requests directed to the subscriber to the preexisting registration address associated with the subscriber." This is exactly what Zhou's location management teaches. The preexisting and new registration addresses are kept and linked and eventually the caller is re-associated with the pre-existing registration address. The only difference is in the Applicant case we have one database in one ATM switch while in Zhou's case we have different databases located at different base stations and mobile switching centers which is simply a function of the specific network architecture.

29. In conclusion, as the Applicant has correctly pointed out on Page 17, Line 12, that Gallant teaches associating policies with subscribers in an ATM network. Applicant has also correctly pointed out on Page 16, Lines 10-13, that Zhou teaches location management techniques in a hybrid ATM wireless network. The combination of Gallant et al. and Zhou et al. references adequately teach all aspects of the claimed invention.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Habte Mered whose telephone number is 571 272 6046. The examiner can normally be reached on Monday to Friday 9:30AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 571 272 3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

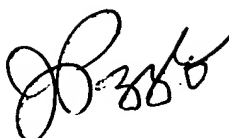
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

Art Unit: 2662

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HM

10-14-2005



JOHN PEZZLO
PRIMARY EXAMINER